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Converging, combining, crystalizing- towards a polymorphic design studio

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Abstract

This paper discusses observations of an architecture and environmental engineering design studio project assigned to 4th year students at a UK university. In the UK most architecture courses are characterised by a high proportion of design studio teaching supported by varying amount of technical modules that include environmental and construction learning. Recent scholarship on the pedagogical need for integrating sustainability into architecture curricula more profoundly discusses the necessity for new approaches that enhance transdisciplinarity, autonomy and independent decision making. However, despite increasing importance to both practice and policy, few empirical or theoretical examples account for the implications or experiences of such an approach. This study presents the experiences of an architecture and environmental engineering design studio whereby studio activities are closely interlinked with technical engineering enquiry and experiment. Specifically, the research examines the challenges and opportunities students face when assigned with a design project that attempts to translate independently derived briefs into novel architectural environmentally engineered interpretations. The analysis draws on a series of ethnographic narrative observations carried over a period of 12 weeks as well as 22 informal discussions with 9 students and three other members of staff. The implications of the findings are threefold. First, the analysis shows the opportunities of an integrated cross disciplinary approach where the gap between creative and technical domains is narrowed. Second, the study presents some of the challenges faced by increased autonomy and lack of prescription that students encounter. Third, the paper contributes to an emerging agenda of sustainability education in the built environment by offering valuable insights into the benefits and difficulties cross disciplinary approaches pose to architectural education.

Keywords: architecture, environmental engineering, pedagogy, sustainability, design

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